

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A gaming machine graphics package, the graphics package including
a storage device for storing data relating to non-varying parts of an
image, the non-varying parts of the image being independent of an outcome
5 of a game played on the gaming machine;
an image generating means for generating simulated three-dimensional
additional parts of the image, the additional parts being dependent on the
game outcome; and
a compositing means for merging the non-varying parts of the image
10 and the additional parts of the image to provide to the player a composite
image relating to the game outcome.
2. The graphics package of claim 1 in which non-varying parts of the
image which are the same for all possible outcomes are pre-rendered and
15 stored in the storage device.
3. The graphics package of claim 2 in which the simulated three-
dimensional images are generated using 3D computer rendering software.
- 20 4. The graphics package of claim 3 in which, from the game outcome, the
relevant simulated three-dimensional images are generated and mapped to
appropriate locations in the non-varying parts of the image to be composited
and displayed to the player as a composite image dependent on the game
outcome.
- 25 5. The graphics package of claim 2 in which the compositing means is a
Z-buffer compositor.
6. The graphics package of claim 5 in which the pre-rendered image is
30 created with a Z-buffer depth value for each pixel in every scene of the image.
7. The graphics package of claim 6 in which Z-buffer data are loaded into
a real time 3D video card for each frame of the image, the additional 3D
objects being composited into the image using 3D techniques and using the Z-
35 buffer data loaded with the image.

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8. The graphics package of claim 7 in which the 3D objects appear in the image according to their Z positions.

9. The graphics package of claim 2 in which the compositing means
5 employs an alpha channel.

10. The graphics package of claim 9 in which the image is separated into those parts which are pre-rendered and those that are drawn using real time 3D.

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11. The graphics package of claim 10 in which, when an animation image is created, each pixel in a final output is output with additional information about alpha-channel values and a material value or object identification (ID).

15 12. The graphics package of claim 11 in which the material value or object ID is used to identify those pixels which are part of the pre-rendered image and those which will be generated in real time by a 3D engine.

13. The graphics package of claim 12 in which a post-processing stage in
20 an output file modifies the image alpha channel to mask out or include the real-time 3D parts of the image.

14. The graphics package of claim 11 in which some pixels in the original image have an intermediate alpha value, better to merge the separate
25 elements of the image together.

15. The graphics package of claim 10 in which, when creating the image, the real-time parts of the image are generated using a pure white surface.

30 16. The graphics package of claim 15 in which effects applied to this surface are also applied to the real-time generated pixels in the final output.

17. The graphics package of claim 2 in which some properties of the real-time 3D objects are pre-rendered and combined with the 3D object as it is
35 being drawn on screen.

18. A method of presenting a game outcome of a game played on a gaming machine to a player, the method including the steps of
storing data relating to non-varying parts of an image in a storage device, the non-varying parts of the image being independent of an outcome
5 of a game played on the gaming machine;
generating simulated three-dimensional additional parts of the image, the additional parts being dependent on the game outcome; and
compositing the non-varying parts and the additional parts of the image to provide a composite image relating to the game outcome to the player.
- 10 19. The method of claim 18 which includes rendering the simulated 3D images in real time and compositing them with the non-varying images in real time.
- 15 20. The method of claim 18 which includes, prior to displaying a game outcome and its associated images to the player, determining the game outcome.
- 20 21. The method of claim 20 which includes, from the game outcome, generating the relevant simulated three-dimensional images and mapping them to appropriate locations in the non-varying parts of the image to be composited and displayed to the player as a composite image dependent on the game outcome.
- 25 22. The method of claim 18 which includes using Z-buffer compositing.
23. The method of claim 22 which includes creating a pre-rendered image with a Z-buffer depth value for each pixel in every scene of the image.
- 30 24. The method of claim 23 which includes loading the Z-buffer data into a real time 3D video card for each frame of the image.
25. The method of claim 24 which includes compositing additional 3D objects into the image using 3D techniques and using the Z-buffer data
35 loaded with the image.

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26. The method of claim 18 which includes creating an alpha channel as a compositing technique.

27. The method of claim 26 which includes separating the image into those
5 parts which are pre-rendered and those that are drawn using real time 3D.

28. The method of claim 27 which includes outputting each pixel in a final output with additional information about alpha-channel values and a material value or object identification (ID).

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29. The method of claim 28 which includes using the material value or object ID to identify those pixels which are part of the pre-rendered image and those which will be generated in real time by a 3D engine.

15 30. The method of claim 29 which includes using a post-processing stage in an output file to modify the image alpha channel to mask out or include the real-time 3D parts of the image.

31. The method of claim 18 which includes pre-rendering some properties
20 of the real-time 3D parts of the image and combining them with the 3D parts of the image as the image is being drawn on screen.

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